



R.K. (Rod) Spackman
Manager-Policy, Government & Public Affairs

Chevron Products Company
El Segundo Refinery
324 W. El Segundo Boulevard
El Segundo, CA 90245
Tel 310 615 5281
Fax 310 615 5520
rspackman@chevron.com

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Mr. Cy Oggins
California State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825

**SUBJECT: Comments on Draft EIR for Chevron El Segundo Marine Terminal
Lease Renewal Project**

Dear Mr. Oggins:

Enclosed for your review are our comments on the Draft Environmental Impact Report (EIR) for the Chevron El Segundo Marine Terminal Lease Renewal Project. Overall, the Draft EIR appears to adequately address the potential impacts of exercising the lease option consistent with the requirements of the California Environmental Quality Act (CEQA) and associated guidelines. Most of our comments are intended to rectify minor inconsistencies or to correct details in the Draft EIR to insure that the Final EIR accurately describes potential impacts as well as Chevron operations. We do however, have several significant concerns which are outlined below and described more fully in the document specific comments.

- As written, the EIR often fails to distinguish between those properties that are associated with the lease boundaries as opposed to Chevron-owned facilities that lie within the Refinery itself. The EIR should clearly differentiate between the facilities that are a part of the lease (and as such a part of the EIR) versus facilities that are owned by Chevron and not part of the lease. This clarification will help ensure that the reader understands that the California State Lands Commission (CSLC) jurisdiction is limited to the lease property and not to other Chevron-owned facilities.

Chev-1

- As noted in our detailed comments, the No Project alternative severely understates the importance of the project.

Chev-2

- Although the EIR assumes a one percent per year increase in crude oil passing through the Marine Terminal, the Chevron Refinery has no plans to make any additional modifications during the proposed lease cycle that would substantially increase the facility's current capacity for the foreseeable future. A number of significant potential impacts were identified based on this assumption and several mitigation measures have been imposed in response to these impacts. However, since it is unclear whether or not

Chev-3

they will ever occur, the mitigation measures should include the necessary language to make sure they will not be required to be implemented until such time as there is an increase in crude shipments through the terminal that “triggers” a significance finding.

- The health risk assessment calculations in the EIR are not appropriate. Both the baseline and the project emissions do not incorporate the use of reduced sulfur fuels. In the baseline, Chevron voluntarily accelerated implementing the use of lower sulfur fuels in auxiliary engines in Chevron-owned vessels. For the future operations, the use of lower sulfur fuels is mandatory by January 1, 2012 with limited exceptions. Therefore, the use of lower sulfur diesel significantly reduces diesel particulate emissions and the related health risk estimates from the project.

Chev-4

- Annual reports appear to be required under most mitigation measures. This is inappropriate in many circumstances as the events that would trigger a revision to reports are often not annual in nature. Suggestions for alternative reporting requirements have been provided in the specific comments.

Chev-5

- The mitigation requirement for all vessels to use inert gas systems is not consistent with existing regulatory requirements. While all tankers and refined product cargo barges (e.g., gasoline, diesel, and jet fuel) can comply, there is limited availability of inert gas system-equipped barges for the heavier intermediate cargos (e.g., gas oils, fuel oils, and light cycle oil), which are lower vapor pressure cargos.

Chev-6

- We believe some of the proposed mitigation measure requirements are technologically infeasible. Specific measures which we feel are infeasible are discussed in the specific comments.

Chev-7

- Some environmental issue area analyses in Chapter 4 fail to evaluate the project impacts alone and evaluate baseline impacts as though the facility does not currently exist. In some instances the project does not change the severity of the potential impact, but merely increases the probability for an impact to occur. As such, the potential environmental impact from the resource would not change from the existing conditions.

Chev-8

- Some mitigation measures overlap and conflict with regulatory requirements implemented by other agencies. Also, several mitigation measures exceed the jurisdiction authority of the CSLC to impose. Suggestions for alternative language have been provided in the specific comments.

Chev-9

We look forward to the completion and certification of the Final EIR. Please let us know if you have any questions or comments.

Sincerely,



R.K. (Rod) Spackman
Manager – Policy, Government & Public Affairs

COMMENTS ON MITIGATION MEASURES

The following are Chevron's comments on the Chevron El Segundo Marine Terminal Lease Renewal Project. To aid in review, where revised text is requested, the new text is in blue and the text that has been requested to be deleted has been identified in ~~strike out format~~.

SSR-1a Inert Gas Systems. This mitigation measure should be revised to indicate that the Applicant shall extend the use of inert gas to all vessels (tankers and barges) in accordance with Code of Federal Regulations (CFR), Title 46, Section 32.53 – Inert Gas System. Smaller vessels are specifically exempted from the use of inert gas systems because of design characteristics that could: (1) eliminate the feasibility of the system due to the physical size of the vessel; (2) create conditions that result in unsafe operation of vessels or introduce unacceptable hazards; and (3) result in systems that could not be maintained. Chevron requires the use and maintenance of inert gas systems on all Chevron-owned vessels. Further, referencing the appropriate CFR section ensures that installed inert gas systems meet specific requirements. The annual reporting frequency is overly burdensome and would require the submittal of hundreds of reports to the CSLC every year, even if there are no changes to the reports. Therefore, reports should be submitted within one year of the lease renewal and when any changes to the reports occur, rather than annually, even if no changes have occurred.

Mitigation SSR-1a should be revised as follows: "The Applicant shall extend the use of inert gas to all vessels (tankers and barges) [in accordance with Title 46 of the Code of Federal Regulations Section 32.53 – Inert Gas System](#). Monitoring shall ensure that oxygen is below 8 percent by volume. ~~to reduce the possibility of fires and explosions.~~ Response planning documents shall address response equipment and fire boats that would respond to a fire at the offshore location. These documents shall be completed [as required by 46 CFR Section 32.53, submitted to CSLC](#) within one year of lease renewal, and [additional reports submitted to CSLC annually thereafter when significant changes are required to the documents.](#)

Chev-10

SSR-1b Lease Modifications. Mitigation measure SSR-1b indicates that the lease shall contain a clause allowing the SLC to add or modify mitigation measures in the event that cost effective technologies become available that would significantly improve protection from fires or explosions if they could be readily implemented during the lease term. CEQA requires the implementation of feasible mitigation measures where significant impacts are identified. As currently worded, it is not clear that this mitigation

measure is reasonable and “feasible” as defined by CEQA Guidelines §15363 nor would it necessarily reduce a significant impact.

We suggest that Mitigation Measure SSR-1b be revised as follows. ~~“The lease for the facility shall contain a clause allowing the California State Lands Commission to add or modify mitigation measures in the event that cost effective technologies become available that would significantly improve protection from fires or explosions if they could be readily implemented during the lease term, as defined by “best achievable technology” (PRC Section 8750(d)).~~ As potential technologies become available which have been evaluated under applicable federal and state regulations and deemed feasible per CEQA Guidelines Section 15363 during the lease term, the Applicant will implement such technology to the extent practicable at the Marine Terminal. If an incident occurs during the lease term, the Applicant will review operational procedures and emergency response activities and, as appropriate, make modifications should be made if a fire or explosion occurs during the lease term to take advantage of lessons learned. Following an event, a Annual reports shall be submitted to CSLC identifying any proposed terminal or operational lease modifications.

Chev-11

SSR-2b

Pressure Point Analysis System. This mitigation measure needs to be revised as it references the use of “Pressure Point Analysis System” which, as explained below, has not proven feasible and reliable at the Marine Terminal. Pressure Point Analysis (PPA) method works well with typical onshore pipelines where more accurate metering system, fixed-stationary equipment, and piping are used. A PPA system was installed at the Marine Terminal in the early 1990's, but its use was stopped due to unmanageable false alarms caused by cargo tank switching, crude oil wash and cargo stripping operations, which occur in typical crude oil marine offloading, and create fluctuations in the pumping rate. The system was extensively tested but was later permanently removed. Chevron is not aware of a successful and reliable PPA system for crude oil marine offloading in the United States. Rather, it is a common practice that the submarine line be checked regularly by static pressure test.

Each Marine Terminal subsea line is pressure checked on a regular basis. For each cargo shipment, the line to that particular berth is tested three times: once before the ship is connected, once after the line is connected to the ship, and once after the ship has disconnected from the line. If the pressure cannot be maintained once the line is pressurized, then the line is place under a vacuum and divers mobilized to investigate a possible leak. Each line is also pressure checked monthly while the underwater manifold and lines are visually inspected. The Marine Terminal follows the same procedure after a large ocean swell or significant wind storm.

During loading and unloading operations a line boat and tug are at the berth to visually monitor for leaks. The Marine Terminal uses onshore gauging in accordance with American Petroleum Institute (API) Manual of Petroleum Measurement Standards, Chapter 3.1A to determine the quantity of product loaded or unloaded. The quantity of cargo transferred is reported by the marine vessel to the onshore facility every 1 to 2 hours, based on the automatic tank gauges on the cargo tanks.

Chev-12

During the annual Marine Terminal maintenance program, each line is visually inspected, pressure tested, and tested under vacuum. A Static Liquid Pressure test per the State Land Commission Article 5.5 is completed on the offshore piping. The cathodic protection system is then inspected yearly by a certified inspector, currently a third party inspector. Additionally, a continuous vacuum system is in place at the Marine Terminal to detect leaks between marine vessel offloadings, i.e., at times when no marine vessel is at berth. Therefore, mitigation measure SSR-2b is not feasible as written (CEQA Guidelines §15363). We suggest that Mitigation Measure SSR-2b be revised as follows:

Pressure Point Analysis System: The Applicant shall ~~re-assess the pressure point analysis~~ **its leak detection** system to ensure that it is utilizing the most recent technology, ~~including pressure sensor accuracy and maintenance and testing, sensor location, and pressures point analysis software,~~ and is designed and maintained to detect leaks. ~~This assessment shall be conducted within one year of lease renewal and reports submitted to CSLC annually thereafter.~~ **The assessment shall be conducted within one year of lease renewal and reports submitted to CSLC annually thereafter. Additional reports shall be submitted to CSLC when modifications to the system occur.**

SSR-2c Testing of Leak Detection. Mitigation measure SSR 2-c should be revised as follows: "The Applicant shall conduct periodic (at least annual) testing of **its leak detection system, which includes visual inspections, hydrostatic testing, and maintaining a vacuum to verify the system is functioning adequately** ~~the vacuum and and pressure point analysis by utilizing by pass valves, or other equivalent methods, to verify the function of these systems~~ and make adjustments as needed. This shall be conducted within one year of lease renewal and reports submitted to CSLC annually thereafter."

Chev-13

SSR-2d Pipeline Leak Detection. This mitigation measure requires the installation of flow meters at both the shipping and receiving end of the loading pipelines with an accuracy of at least 2% of maximum design flow rates within five minutes. Similar to the reasons given in the response to SSR-2b, there is no flow meter on the marine vessels owned by various parties. The quantity of cargo received during loading/unloading operations is reported by the marine vessel every 1 to 2 hours, based on the automatic tank gauges on the cargo tanks. The Marine Terminal

operation involves cargo tank switching, resulting in a large fluctuation of flow rate; making it unsuitable to perform continuous flow balance. At the onshore facilities, shore tank gauging is used, in accordance with API Manual of Petroleum Measurement Standards, Chapter 3.1A, to determine the quantity of the product transferred. In addition, ship-shore reconciliation is monitored carefully during each shipment (as well as marine receipt). An out-of-tolerance discrepancy for each loading is monitored in accordance to API Manual of Petroleum Measurement Standards, Chapter 17, Marine Measurement.

Chev-14

Chevron is not aware of a pipeline leak detection flow meter system used with success in offshore marine loading operations in the United States that will meet the accuracy or operational requirements specific in mitigation measure SSR-2d. We therefore recommend that this mitigation measure be removed. Future improvements to the systems can be addressed by Mitigation Measure SSR-1b.

SSR-2f Pipeline Inspections. This mitigation measure conflicts with other mitigation measures that require that the pipeline be buried as visual inspection cannot be performed on a buried pipeline. The Pipeline End Manifold (PLEM) is not smart pigable. Performance of a visual inspection after a "major winter storm" provides more beneficial information on the Marine Terminal than a bathymetric survey. Therefore, we suggest Mitigation Measure SSR-2f be revised as follows:

"Pipeline Inspections. In addition to periodic inspections and surveys, within one year of lease renewal, the Applicant shall implement smart-pig inspections, cathodic inspections of the entire pipelines, bathymetric surveys and visual ~~remote-operated vehicle~~ inspections of all Marine Terminal pipelines. ~~This would require modifying some existing pipelines to allow smart pigs to pass through all pipelines.~~ The entire pipeline route should be visually inspected, and bathymetric surveys conducted, at least every three years. **Furthermore, the berths should be visually inspected after major winter storms.** Visual surveys shall inspect a minimum of unsupported spans, anchors and mooring lines and other anomalies. The cathodic protection testing should be conducted per **National Association of Corrosion Engineers (NACE) SP0169.** ~~NACE RP0169 and API 570.~~ Close interval cathodic protection testing should be conducted every three to five years to ensure that the cathodic protection system is operating correctly throughout the entire length of the pipelines. Written results of each inspection in the form of a report shall be made **available on request** ~~by submitted to the CSLC annually,~~ and pipelines repaired as necessary.

Chev-15

SSR-2j Berm and Drainage at Onshore Marine Terminal. This mitigation measure requires drain protection at the Marine Terminal. However, there are no drains at the onshore Marine Terminal so drain protection should

be removed from this mitigation measure. The mitigation measure also requires berms to protect the ocean and contain any oil spilled within the onshore portion of the Marine Terminal from onshore pipelines, pumps, etc. (including potential drain-down from refinery tanks). There are no storage tanks that are part of the Marine Terminal lease so mitigation measures associated with storage tanks are not within the jurisdiction of the CSLC. Onshore refinery tanks are maintained per good engineering practices, such as the American Petroleum Institute's API 653. Furthermore, spill protection from onshore tanks and pipelines is covered by current regulations (Spill Prevention Control and Countermeasures (40 CFR 112.7) and CSLC's requirement to follow API 570). The Federal plan includes the tank fields, refinery process areas and interconnecting pipelines. Therefore, Mitigation Measure SSR-2j should be removed.

Chev-16

SSR-2k Pipeline Maintenance: Mitigation measure SSR-2k needs to be revised to allow normal HAZOP procedure recommendations to be implemented. Mitigation measure SSR-2k should be rewritten as follows:

Pipeline Maintenance. "Within one year of the lease renewal, the Applicant shall ensure that all applicable recommendations from previous hazard and operability studies and cathodic protection system reports associated with the Marine Terminal are implemented . . . Hazard and operability studies shall be updated as required by the EPA or OSHA and copies of the reports shall be submitted to CSLC."

Chev-17

SSR-3 Sampling program for Sediments. This mitigation requires sediment sampling 60 days prior to the start of any construction. While this is appropriate for any major planned construction work, there needs to be a provision which allows for the immediate repair of any pipelines, as may be required during routine inspections. Sediments regularly move with the currents, tides, storms, and normal ocean activity. Therefore, we suggest Mitigation Measure SSR-3 be revised as follows:

Sampling Program for Sediments Within the Proposed Project. 60 days prior to the start of any **major planned** construction (ongoing during construction, as applicable), **excluding inspection, routine maintenance and repair, and prior to conducting any offshore activities that would disturb sediments**, the nature of potential contamination within these sediments shall be defined. Samples should be collected and analyzed, and results summarized in a report to the CSLC **and other interested parties**. This report should include, at a minimum, recommendations to minimize disruption of any identified contaminated sediments, including removal if necessary. Sediments **to be disturbed during construction which were** found to be **contaminated** shall be appropriately **managed** ~~treated~~ prior to conducting any offshore activities.

Chev-18

WSQ-2

Sediment Sampling within Scour Areas. This mitigation measure requires the applicant to perform a chemical analysis of the sediment samples collected within the propeller wash scour areas beneath Berths 3 & 4 and if they exceed certain thresholds may require remediation or movement of the existing berths. (See comment on SSR-3). The refinery already participates in a sediment monitoring program as part of receiving water monitoring requirements identified in its National Pollutant Discharge Elimination System (NPDES) Permit CA0000337. Chevron performs various chemical and or biological tests at 16 specified location, including tests for dissolved sulfides, total organic carbon, organic nitrogen, trace metals, DDT, PCB, PAHs and priority pollutants. Background samples are also taken at two locations for chemical analysis. Therefore, we suggest Mitigation Measure WSQ-2 be replaced with the following:

Chev-18

Sediment Sampling within Scour Areas. The Applicant shall continue to participate in its current sediment sampling program as identified in its NPDES permit, and will modify the sampling program to meet any future changes specified pursuant to subsequent NPDES permit modifications. Sampling within the scour areas will be commenced should any construction occur within these areas. Reports of sediment sampling shall be made available to CSLC upon request.

BIO-1a

Updates to Oil Spill Contingency Plan to Reflect the Project Changes. The Oil Spill Contingency Plan will be submitted to CSLC, but approval is from the responsible agency (OSPR). Platform Irene and Deepwater Horizon oil spills were from an operating oil platform and a deep-water exploratory well and as such are very different than a potential terminal accident. Therefore, we suggest the following replacement for Mitigation Measure BIO-1a:

Chev-19

Update the Oil Spill Contingency Plan to Reflect the Project Changes. The Applicant shall update the Oil Spill Contingency Plan to incorporate changes in activities that result from the proposed Project. In addition, lessons learned that are associated with oil spill response and cleanup of the 1997 Platform Irene or 2010 Deepwater Horizon oil spills shall be incorporated into the Plan. The revised Oil Spill Contingency Plan shall be submitted within one year of lease renewal.

BIO-1b

Vessel Response Plans. This mitigation measure requires vessels that call on the Marine Terminal to implement their own oil spill response plan and requires plans be submitted every year. Vessels are required to have an Oil Spill Response Plan per the requirements of 33 Code of Federal Regulations 155, Subpart D. Chevron suggests that the language of mitigation measure BIO-1b be re-worded to avoid unnecessary reporting requirements. In 2006, approximately 80 different vessels visited the

Marine Terminal. Chevron does not have access to oil spill response plans for non-Chevron vessels. Therefore, we would suggest this mitigation measure be revised to require that Chevron verify for each vessel that delivers material to the Marine Terminal that it have an approved oil spill response. The language for Mitigation Measure BIO-1b should be replaced with the following:

Chev-20

Vessels That Call on the Terminal Shall Implement Their Own Spill Response Plan. The Applicant shall revise its 'Vessel Pre-Arrival Questionnaire' for all arriving vessels to verify compliance with the requirements of 33 CFR 155, Subpart D. The Vessel Pre-Arrival Questionnaire will require that the vessel operator provide the date and document number of the approved Oil Spill Response Plan.

BIO-3a

Marine Mammal and Turtle Contingency Plan. This mitigation measure requires the applicant to develop a contingency plan that focuses on recognition and avoidance of marine mammals encountered at sea. Chevron finds this mitigation measure generally acceptable but portions of the mitigation measure are not feasible per the requirements of CEQA Guidelines §15363 and cannot be implement as currently proposed.

Mitigation measure BIO-3a, No. 1 should be revised as follows to clarify the training requirements for marine mammal observers: "Existing and new vessel operators shall be trained by a marine mammal expert to recognize and avoid marine mammals. Training sessions shall focus on the identification of marine mammal species, the specific behaviors of species common to the Project area and transportation routes, and awareness of seasonal concentrations of marine mammal and turtle species. The operators shall complete refresher training annually ~~be re-trained annually~~."

Mitigation measure BIO-3a, No. 2 may conflict with other regulations and requirements and needs to be revised. Vessel crew is only two on launches and three on line boats. Adding additional observers may exceed the vessel Document of Inspection (DOI) as issued by the U.S. Coast Guard. Mitigation measure BIO-3a, No. 2 should be revised as follows: "A minimum of ~~one~~^{two} marine mammal observers shall be placed on all support vessels during the spring and fall gray whale migration periods (generally December through May), and during periods/seasons when other marine mammals, such as migrating fin, blue, and humpback whales (generally June through November), are known to be in the Project area in relatively large numbers. Observers can include the vessel operator and/or crew members, as well as any Project worker that has received proper training. Vessel operators and crews shall maintain a vigilant watch for marine mammals and sea turtles to avoid striking sighted protected species."

Chev-21

The requirement that operators shift the engine to neutral is unacceptable, as ships are large vessels that take a significant amount of time to maneuver. Shifting a vessel into neutral while close to the coast and carrying crude oil could result in significant risk and potential hazards of grounding. Mitigation Measure BIO-3a, No. 6 should be revised as follows: "Whales may surface in unpredictable locations or approach slowly moving vessels. When an animal is sighted in the vessel's path or in close proximity to a moving vessel and when safety permits, operators will reduce speed and take reasonable action to avoid the animal. ~~and shift the engine to neutral. Vessel operators will not engage the engines until the animals are clear of the area.~~"

BIO-3b Burial of Pipelines. This mitigation measure conflicts with SSR-2f as it requires the applicant to bury subsea pipelines and cables to a depth of 1 meter. SSR-2f requires visual inspection of pipelines. Further, this mitigation measure does not consider the routine movement of sediment throughout the region and the transitory impacts that occur during high surf and winter storm conditions. Mitigation measure BIO-3b is impractical and creates safety concerns due to the fact that it limits direct observation of the pipelines by divers as needed during routine inspections. Therefore, Mitigation measure BIO-3b should be eliminated.

Chev-22

BIO-5 Update the Oil Spill Contingency Plan to Protect Sensitive Resources. This mitigation measure is already addressed in guidance and regulations from other agencies. Section 4202 of the Oil Pollution Act of 1990 (OPA 90) amended Subsection (j) of Section 311 of the Federal Water Pollution Control Act (FWPCA) (33 U.S.C. 1321 (j)) to address the development of a National Planning and Response System for oil spills. As part of this system, Area Committees have been established. Each Area Committee is responsible for developing an Area Contingency Plan (ACP) which, when implemented in conjunction with the National Contingency Plan (NCP), is required to be adequate to remove a worst case discharge of oil or a hazardous substance, and to mitigate or prevent a substantial threat of such a discharge, from a vessel, offshore facility, or onshore facility operating in or near the geographic area. Each Area Committee is also responsible for working with State and local officials to pre-plan for joint response efforts, including appropriate procedures for mechanical recovery, dispersal, shoreline cleanup, protection of sensitive environmental areas, and protection, rescue, and rehabilitation of fisheries and wildlife. In California the ACP has been developed by the California Department of Fish and Game. The (ACP) is revised periodically to address protection of sensitive biological resources of any areas disturbed during an oil spill or cleanup activities. These Plans include, but are not limited to:

- Specific measures to avoid impacts on Federal- and State-listed endangered and threatened species and Environmentally Sensitive Habitat Areas during response and cleanup operations. The ACP also evaluates the non-cleanup option for ecologically vulnerable habitats such as coastal estuaries.
- Descriptions of training for spill response personnel for response in terrestrial environments.
- Stipulations for development and implementation of site-specific habitat restoration plans when habitat disturbance cannot be avoided. Also, procedures for timely re-establishment of vegetation that replicates the habitats disturbed.
- Access and egress points, staging areas, and material stockpile areas that avoid sensitive habitat areas during cleanup operations are identified.
- Species- and site-specific procedures for collection, transportation and treatment of oiled wildlife, particularly for sensitive species

Chev-23

Numerous local, state and federal agencies are involved in the development and enforcement of the ACP including the U.S. Coast Guard, California Department of Fish and Game OSPR, CSLC, California State Fire Marshal, Minerals Management Services, as well as other local investigative and enforcement authorities. Therefore, Mitigation Measure BIO-5 should be replaced with the following:

Update the Oil Spill Contingency Plan to Protect Sensitive Resources. "Update the Oil Spill Contingency Plan (OSCP) by including a requirement to follow the applicable portions of the Area Contingency Plan (and National Contingency Plan) under guidance from the appropriate lead agency (e.g., California Department of Fish & Game). The revised Oil Spill Contingency Plan shall be submitted within one year of lease renewal."

AQ-1

Low Sulfur Fuels. Mitigation measure AQ-1 requires the use of marine diesel oil (MDO) with a maximum of 0.2% sulfur by weight. This mitigation measure is outdated. California Air Resources Board (CARB) regulations currently require the use of marine diesel oil with a maximum of 0.5% sulfur by weight. However, the sulfur content of MDO is required to be a maximum of 0.1% sulfur by January 2012. Although Chevron-owned ships generally use fuel that is well below the 0.1% limit, non-Chevron owned ship may not be in compliance until January 1, 2012. Therefore,

Chev-24

Mitigation Measure AQ-1 should be eliminated or specify that Chevron is to comply with CARB regulations.

AQ-2

Greenhouse Gas Reduction Strategies. This mitigation measure requires the Applicant to implement a program to reduce greenhouse gas emissions associated with Marine Terminal operations and provide annual reports to the CSLC. The impacts are associated with the estimated increase in marine vessels. Although the EIR assumes a one percent per year increase in crude through the Marine Terminal, Chevron has no plans to make any additional modifications during the proposed lease cycle that would substantially increase the facility's current capacity for the foreseeable future. Therefore, GHG impacts would not occur unless there was an increase in marine vessels visiting the terminal. Mitigation measure AQ-2 should be replaced with the following:

Greenhouse Gas Reduction Strategies: "The Applicant shall implement a program to quantify and mitigate significant increases in GHG emissions, consistent with the SCAQMD GHG significance threshold and mitigation policies, associated with Marine Terminal operations, if and when there is a significant increase in marine vessel traffic (as measured from the 2006 baseline). Chevron will develop and submit reports to the CSLC annually, thereafter."

Chev-25

GEO-1b

Seismic Resistant Design. Mitigation measure GEO-1b requires Chevron to perform seismic evaluation and design for all existing facilities, as well as post seismic event inspections. Chevron and all other Marine Terminals were required to implement such activities under the Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS). Chevron has already implemented a program to perform seismic evaluation for all applicable Marine Terminal facilities and already has implemented post-seismic event procedures. MOTEMS required that an audit be conducted to evaluate all structural, mooring, electrical and mechanical systems and that facilities be upgraded, depending on certain criteria. This audit is required to be conducted periodically. MOTEMS also requires that an inspection or audit is conducted following a significant event such as an earthquake, flood, fire or vessel impact. Mitigation measures GEO-1b is redundant with the MOTEMS requirements and should be consistent with these requirements. In order to minimize redundancy, Mitigation Measure GEO-1b should be written as follows:

Seismic Resistant Design. "The Applicant shall perform seismic evaluation and design for all existing facilities ~~or pipelines and employ current industry seismic design guidelines including but not limited to: Guidelines for the Design of Buried Steel Pipe by American Lifeline, Guidelines for the Seismic Design and Assessment of Natural Gas and Liquid Hydrocarbon Pipelines by Pipeline PRCI (2004), and California~~

Chev-26

~~State Lands Commission consistent with the Marine Oil Terminal Engineering and Maintenance Standards for seismic resistant design of the pipeline. The seismic evaluation of existing facilities shall be conducted in accordance with the Local Emergency Planning Committee Region 1 Guidance for CalARP Seismic Assessments including a walkthrough by a qualified seismic engineer. In addition, post-event inspections must follow the Marine Oil Terminal Engineering and Maintenance Standards guidelines. This evaluation and design shall be conducted within one year of lease renewal and reports submitted to CSLC annually thereafter~~ on a schedule as identified in the MOTEMS guidelines.”

GEO-1c Seismic Inspection. Mitigation measure GEO-1c requires the operator to cease operation and inspect all project related pipelines following any seismic event in the region that exceeds specified ground acceleration criteria of 0.13 percent of gravity (0.13 g). It then specifies that prior to the restarting of operations authorization must be obtained by the CSLC. These requirements are redundant with existing Chevron earthquake response procedures.

Chevron currently has in place an existing emergency seismic Inspection program documented in its Emergency Response Plan (ERP). As part of the ERP process, Chevron subscribes to the Emergency Digital Information System (EDIS), a service of the Governor’s Office of Emergency Services. The EDIS delivers official information about emergencies and disasters (including earthquakes) to the public and news media. Depending on the magnitude of the earthquake, Chevron mobilizes damage assessment teams, which may include helicopter overflights as well as divers for the Marine Terminal subsea lines.

In conjunction with damage assessment teams, individuals responsible for the berths and on-shore process equipment initially survey structures and storage facilities for damage. Additional inspections are conducted by equipment Inspectors and qualified Engineers, when deemed necessary. Consistent with Chevron’s Emergency Response Plan, the post-seismic activity inspection includes, but is not limited to, inspection of equipment and pipe support foundations for cracks or loose anchor bolts, evaluation of bent or distorted pipeline, loss of utilities, review of excessive vibration readings from rotating equipment, inspection of tanks, etc. Included as part of this inspection are the pumps, pipelines, and the control room servicing the Chevron Marine Terminal, there are no tanks included in the Marine Terminal lease area. Additionally, the pipelines, underwater manifold and berths located within the Marine Terminal lease area are evaluated for leaks and other damage after any earthquake or other anomalies that could impact the system. Included in this evaluation is the performance of a vacuum test of the subsea lines to ensure integrity of the

line, if deemed necessary based on the strength of the earthquake. Follow-up inspection by divers may also be implemented if the vacuum test fails.

Chevron does not currently have the ability to measure ground acceleration in the Los Angeles county area, offshore areas of the Santa Monica Bay and southern Channel Islands. The impact of an earthquake may have very little impact on the facility depending on the location of the earthquake, fault location, etc. Additionally, the mitigation measure as written duplicates processes already in place by the Office of the State Fire Marshall. In accordance with the oil spill Area Contingency Plan, California Government Code Sections 40400 - 52999, Chapter 5.5 of the California Pipeline Safety Act of 1981 has given the State Fire Marshal's Office authority to respond to pipeline related offshore oil spills to determine compliance with pipeline safety regulations on construction, maintenance, and operations (normal, abnormal, emergency procedures, and cleanup responses).

Chev-27

The Modified Mercalli scale has been widely used by seismologists as a measure of earthquake size, and it assigns a Roman numeral in the range I - XII to observed earthquake effects. Dr. Bruce Bolt, one of the world's leading seismologists, has correlated the Modified Mercalli scale to ground acceleration. A Modified Mercalli VII index corresponds to ground acceleration between about 0.1 to 0.15 g. This is a qualitative index that would indicate damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken and would be noticed by persons driving cars. As such, the existing Chevron Emergency Response Plan addresses earthquakes with ground acceleration of 0.13 g based on visual observation.

We recommend that the mitigation measure be removed since it duplicates processes already in place. Moreover, there is no change from baseline conditions since the berths and lines already exist; therefore no mitigation is required. In the event the mitigation measure is left in place, we recommend that it be rewritten as follows:

Seismic Inspection. During the term of the 30-year lease, the operator shall cease associated pipeline operations and inspect all lease-related pipelines following any seismic event ~~in the region (Los Angeles County and offshore waters of the Santa Monica Bay and southern Channel Islands)~~ that ~~exceeds either a ground acceleration of 13% of gravity (0.13g)~~ [qualifies for inspection under the Chevron Emergency Response Plan](#). The operator shall report the findings of such inspection to the CSLC, ~~the city of El Segundo, and the County of Los Angeles~~. The operator shall not reinstate operations of the Marine Terminal and associated pipelines ~~within the city of El Segundo until authorized by the a~~

successful vacuum test of pipelines within the lease area has been performed, based on the strength of the earthquake, and CSLC has been notified.

SPECIFIC COMMENTS

1. Page 1-1, Line 11-13.

The one percent increase in throughput should be described as a potential increase. Future operations at the Marine Terminal may change slightly over time based on the normal variability of refinery operations in a given year, although current equipment configurations are expected to remain the same. Consequently, future vessel calls will also likely remain the same, or to some extent, decrease for the following reasons:

- The refinery has no plans to make any additional modifications during the proposed lease cycle that would substantially increase the facility's current capacity for the foreseeable future. The operation of the refinery is currently limited through a number of operation permits and various rules and regulations (e.g., SCAQMD operating permits, SCAQMD RECLAIM regulations, U.S. EPA Title V permit, etc). In order to increase the crude throughput of the refinery, major modifications would be required. In addition, the lack of available emission credits and the complexity of permitting any potential refinery expansion in the South Coast Air Basin make any such expansion improbable.
- Although Chevron may see modest declines overall in California production, the availability of San Joaquin Valley crudes will likely increase as Chevron utilizes more of its proprietary production. The net effect of this shift will be an increase in the refinery's overall pipeline crude receipts and corresponding decrease in vessel traffic.

Given the realities of today's marketplace and the evolving regulatory environment (AB 32, etc.) the refinery is not forecasting any increase in crude throughput ("refinery creep") based on current demand projections. To further exemplify the variability of operations and the conservativeness of the 1% growth assumption, since 2006, vessel calls at the Marine Terminal have been less than 2006 which is consistent with the current economic climate (i.e., there has been no 1% per year increase in marine traffic).

Chev-28

2. Page 1-3, Line 20

The EIR needs to be consistent with the statement that the "Project action to be taken by the CSLC does not include the onshore facilities." Chevron does not agree with the statement that only offshore facilities are being considered as part

Chev-29

of the CSLC proposed action since there is an onshore element to the lease. However, a number of places in the EIR confuse the lease with other onshore Chevron-owned property. These concerns are addressed further in subsequent comments.

3. Page 1-4, Lines 15-17.

Revise the sentence as follows: “The Marine Terminal **has the capability** to export diesel fuel, gas oil, ~~number 6~~ fuel oil, commercial jet fuel, fluidized catalytic cracker light cycle oil, crude oil residuum, motor gasoline, and motor gasoline components.”

Chev-30

4. Page 2-6, Lines 9 through 24

The EIR needs to consistently identify the areas that are leased from the CSLC and are part of the proposed lease action and for which the CSLC has jurisdiction over, versus other property that is owned by Chevron. The Marine Terminal lease boundaries include:

- Onshore beach area
- Circular areas encompassing offshore Berths 3.
- Active pipeline corridors ranging from 50 to 60 feet wide, running the length of the active pipelines from the onshore lease area to the berths.
- An abandoned pipeline corridor 60 feet wide, from the onshore Marine Terminal to the abandoned Berth 1 area; and
- An area, approximately 900 by 160 feet encompassing the rock groin.

The lease boundaries do not include the onshore portion located immediately west of the Refinery and Vista Del Mar Road along the beach which includes the pump stations, control house, two substations, and a helicopter landing pad. Therefore, the first bullet item on page 2-6 should be modified to include an accurate description of the onshore element of the lease. This clarification should be provided throughout the EIR.

Line 10

The sentence should be revised as follows: “The **Chevron** Marine Terminal, **which is part of the system to move petroleum products to and from the Refinery**, is located adjacent to Chevron’s petroleum Refinery. The Marine Terminal **lease** area is an approximately 221-acre . . .

Chev-31

Lines 14-16

The area referenced in this sentence is not part of the lease action (The onshore portion located immediately west of the Refinery and Vista Del Mar Road along the

beach, which includes the pump stations, control house, two substations, and a helicopter landing pad), as these facilities are owned by Chevron.

Lines 26-27

Sentence should be revised as follows: The Chevron-owned onshore Marine Terminal facilities are an integral part of the Marine Terminal operations, **but are not part of the lease with the CSLC.**

5. Page 2-23, Lines 10-13

Edit as follows: "Sometimes, only part of the cargo from the VLCC and ULCC is offloaded and delivered to the Marine Terminal and some of the cargo may be offloaded and delivered to POLA/POLB terminals operated by other companies, **or delivered to other terminals in California.**"

Line 24

Please edit the first sentence as follows: "The **onshore** Marine Terminal facilities are equipped . . ."

Chev-32

6. Page 2-29, Line 29

Fire boats are available from the POLA, POLB, and **Marina Del Rey**. The sentence should be revised to include Marina Del Rey.

Chev-33

7. Page 2-30, Future Operations Lines 6 through 29

Information provided in the application needs to be updated to reflect current environmental, economic, and market conditions. As noted previously, based on current environmental, economic, and market conditions (rather than those in place when the application was submitted), the assumption that crude will increase by one percent is no longer reasonable. Therefore, the text of this section should be deleted and revised as follows:

"Future operations at the Marine Terminal may change slightly over time based on the normal variability of refinery operations in a given year, although current equipment configurations are expected to remain the same. Consequently, future vessel calls will also likely remain the same, or to some extent, decrease for the following reasons:

- The refinery has no plans to make any additional modifications during the proposed lease cycle that would substantially increase the facility's current capacity for the foreseeable future. In addition, the lack of available emission credits and the complexity of permitting any potential refinery expansion in the South Coast Air Basin make any such expansion improbable.

Chev-34

- Although Chevron may see modest declines overall in California production, the availability of San Joaquin Valley crudes will likely increase as Chevron utilizes more of its proprietary production. The net effect of this shift will be an increase in the refinery's overall pipeline crude receipts and corresponding decrease in vessel traffic.

Given the realities of today's marketplace and the evolving regulatory environment (AB 32, etc.) the refinery is not forecasting any ("refinery creep") based on current demand projections."

CHAPTER 3.0 ALTERNATIVES AND CUMULATIVE PROJECTS

8. Page 3-2, before Section 3.1.2 Alternatives Screening Methodology

In order to provide clarity on the discussion of alternatives, we suggest that the project objectives be addressed before Section 3.1.2 in a separate section as identified below.

3.1.2 Objectives

The objective of the proposed project is to maintain the operation and viability of the Chevron El Segundo Refinery (Refinery) by continuing current Chevron Marine Terminal operations through which the Refinery both receives its raw materials and exports its refined products. The proposed project is needed in order to continue Refinery operations. Without the use of the Marine Terminal, the Refinery would not be viable and would be shut down.

Chev-35

9. Page 3-3, Line 24

To help clarify the EIR, this section should include a definition of "feasible." We suggest that the following language be added after the sentence that ends (Section 15126.6(a)):

"Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors (CEQA Guidelines §15362). Therefore, economic considerations play a factor in the determination of "feasible" or "infeasible".

Chev-36

10. Page 3-5, Table 3-1, line 6 of table (Chevron 1&2)

The correct distance of a new pipeline from the Navy Depot to the POLA is 3 to 4 miles (not about 0.5 miles)

Chev-37

11. Page 3-10, No Project Alternative

The description of the No Project Alternatives under reports the potential impacts of the No Project Alternative. The language in this section of the EIR (3.3.1) should be removed and replaced with the following:

“Under this alternative, a new lease would not be granted and Chevron would cease to operate the Marine Terminal. Chevron would import crude oil and export products through other means, including the POLA/POLB terminals, onshore pipelines, rail cars, trucking, or, most likely, a combination of those means of transportation. This could limit the operations of the Refinery and may cause the Refinery to reduce its throughput. A number of the existing Refinery units cannot operate at reduced throughput so that the construction of new Refinery equipment would be required or ultimately the Refinery would be closed. This alternative would decommission the Marine Terminal facilities with components abandoned in place or removed. Utilization of the POLA/POLB terminals would require the construction of a new pipeline or new pipelines to the POLA/POLB. The impacts of the No Project Alternative vary depending on the mode of transportation and potential future projects.

No Project Alternative and No Further Projects: If the Marine Terminal lease is not extended and no other projects are implemented, it is likely that the Refinery would shut down. Under this alternative the Refinery would receive 100 percent California crude via existing pipelines. The Refinery throughput would be reduced to about 50,000 bpd, which is below the throughput of the large (200,000 bpd) Crude Unit. Chevron could continue to use its smaller (70,000 bpd) Crude Unit. However, 50,000 bpd is not sufficient feed to run some of the downstream processing units, e.g., Fluid Catalytic Cracking Unit, Coker, Isomax, Vacuum Residuum Desulfurization Unit, VGO (define), and DFH (define). Major refinery modifications would be required to reduce the throughput of a number of refinery units. Consequently, it is expected that the Refinery would shut down under these assumptions and Southern California would lose its largest producer of transportation fuels, resulting in increased fuel costs and the loss of 1,500 to 2,500 full time workers.

No Project Alternative and Receive California Crude via Existing Pipelines. While there is additional capacity on the existing pipeline to run incremental California crude, the pipeline is not sufficiently large to allow the large and small crude units to run at current capacities and there would be a substantial reduction in Refinery throughput. Furthermore, the Chevron Refinery is not designed to run on a 100 percent California crude slate due to the nature of California crude itself (higher sulfur content). Also the metallurgy of the 200,000 bpd crude unit and configuration and relative sizing of the mid-stream processing units are not compatible with a 100 percent California crude slate due to its more corrosive nature. Equipment would have to be modified or equipment failures would be expected that would pose an unacceptable environmental and safety threat to employees and the public. The costs to retrofit the 200,000 bpd crude unit plus

other mid-stream units would be prohibitive in terms of permitting costs (potential need for offsets that are not available) and modification costs. Many of the existing refinery units would have to be modified.

No Project and Transport of Materials through the Local Ports: The Ports of Los Angeles and Long Beach do not have the capability to handle an additional 200,000 to 240,000 bpd of crude and up to 100,000 bpd in other raw materials. The existing terminals are probably not able to handle the El Segundo Refinery products and may not have the capacity to transport the crude oil through their facilities to the Refinery. The throughput of most Marine Terminals is limited by permit conditions. All of these factors could seriously limit the crude imports and product exports at the Refinery.

Chev-38

There is not enough dedicated pipeline capacity in the Los Angeles basin to transport the volume of crude and other raw materials to the Refinery. Therefore, a new pipeline would be required under this scenario (see Section 3.1.5). Additional assessment and permitting activities that may take several years would be required before this alternative could be implemented.

No Project and Transport of Materials through Truck and Rail: Another option would involve additional trucks bringing crude into the Refinery or transporting refined products beyond what can be transported by existing pipelines and through the POLA/POLB. Significant transportation of crude oil or products via truck is not physically feasible, nor environmentally desirable. Trucks can carry about 200 barrels of crude per truck. Approximately 1,000 trucks per day (one truck every two minutes) would be required to offset the flow of crude across the Marine Terminal. Trucks currently provide raw material but no crude oil; a truck terminal is available to handle this activity. However, a new truck terminal would be required to handle 1,000 trucks per day and 200,000 to 240,000 barrels per day of crude.

Rail transportation could bring materials into and out of the Refinery as needed to meet the requirements of the Refinery that cannot be met through other transportation methods. However, extensive transportation of crude oil or refined products via the railways is physically infeasible. Transporting large volumes of oil via rail would also be difficult logistically. A rail car holds about 700 barrels per car so that approximately 340 rail cars per day would be required. A facility for rail shipping and receiving does exist at the Refinery but does not have sufficient offloading capacity to handle the estimated volume of crude that would be required. In addition, increased rail traffic beyond the existing volumes would result in delays to surface vehicles along routes near the Refinery. Additionally, most of the Refinery's current and future crude oil supply sources are not currently accessible by rail.

Time-consuming abandonment of the Marine Terminal would involve dismantling and removing equipment; excavating and treating soils; and removing piping, tanks, and other structures. Heavy equipment including cranes, backhoes, flat bed

trucks, dump trucks, and front-end loaders would operate throughout the Marine Terminal site for at least several months. Some facilities would be removed and others would likely be abandoned in place. Trucks would enter and leave the area during the decommissioning.

No Project Alternative Evaluation: For the purpose of this EIR, it is assumed that the majority of the crude oil needed at the Refinery would be transported through pipeline after marine transportation to the POLA/POLB and through a new pipeline; and less than 10 percent would be transported via truck or rail. Accordingly, the collective potential environmental impacts of these transportation methods are described and analyzed in this EIR. For the purposes of this EIR, it is assumed that the No Project Alternative's decommissioning schedule would consider implementing one or more of these transportation methods. Any future crude oil or product transportation alternative would require a subsequent application to the CSLC and any other agencies with jurisdiction depending on the proposed alternative.

Decommissioning, abandoning, or deconstructing the Marine Terminal would require a separate CEQA review. Since details associated with decommissioning, abandoning, or deconstructing the Terminal would need to be developed if they were to occur, for the purposes of this EIR potential impacts will be discussed only generally.”

12. Page 3-12, Line 12

Trucks do not currently transport crude oil to the Refinery. The sentence should be revised as follows. “Trucks currently provide a small amount of ~~crude oil or~~ raw materials to the Refinery . . .”

Chev-39

13. Page 3-36, Line 24

The addendum to the Final EIR for the Chevron PRO Project was certified by the SCAQMD on May 13, 2010. This sentence should be updated to reflect this information.

Chev-40

CHAPTER 4.0 ENVIRONMENTAL ANALYSIS

14. Page 4.1-15, Line 23

References to the Pressure Point Analysis (PPA) system should be removed from the document. The PPA method works well with typical onshore pipelines where more accurate metering system, fixed-stationary equipment, and piping are used. A PPA system was installed at the Marine Terminal in the early 1990's, but its use was stopped due to unmanageable false alarms caused by cargo tank switching, crude oil wash and cargo stripping operations, which occur in typical crude oil marine offloading, which create fluctuations in the pumping rate. The system was

extensively tested but was later permanently removed. Chevron is not aware of a successful and reliable PPA system for crude oil marine offloading in the United States. Rather, it is a common practice that the submarine line be checked regularly by static pressure test.

Each Marine Terminal subsea line is pressure checked on a regular basis. For each cargo shipment, the line to that particular berth is tested three times: once before the ship is connected, once after the line is connected to the ship, and once after the ship has disconnected from the line. If the pressure cannot be maintained once the line is pressurized, then the line is placed under a vacuum and divers mobilized to investigate a possible leak. Each line is also pressure checked monthly while the underwater manifold and lines are visually inspected. The Marine Terminal follows the same procedure after a large ocean swell or significant wind storm.

Chev-41

During loading and unloading operations a line boat and tug are at the berth to visually monitor for leaks. The Marine Terminal uses shore gauging in accordance with API Manual of Petroleum Measurement Standards, Chapter 3.1A to determine the quantity of product loaded or unloaded. The quantity of cargo transferred is reported by the marine vessel to the onshore facility every 1 to 2 hours, based on the automatic tank gauges on the cargo tanks.

During the annual Marine Terminal shut down, each line is visually inspected, pressure tested, and tested under vacuum. A Static Liquid Pressure test per the State Land Commission Article 5.5 is completed on the offshore piping. The cathodic protection system is then inspected yearly by a certified inspector, currently a third party inspector. Additionally, a continuous vacuum system is in place at the Marine Terminal to detect leaks between marine vessel offloadings, i.e., at times when no marine vessel is at berth.

15. Page 4.1-23, Line 10

The cause of the release from the *John McCone* is incorrectly stated as a stress fracture. As stated in Table 4.1-3, the release was from a hole in the ship's bottom. It should be noted that the *John McCone* was a single-hulled ship and single-hulled ships are no longer allowed for the shipment of crude oil.

Chev-42

16. Page 4.1-31, Line 7

This paragraph fails to convey the true difference between an exploration well release and a tanker spill. Chevron requests the paragraph be replaced with the following:

"The BP spill differs from a potential tanker spill in a number of ways. Most notably, the BP spill occurred from an exploration well drilled into a pressurized oil reservoir (which acts as a relatively unlimited supply) in very deep water with the

Chev-43

release location at the ocean floor. In contrast, a potential tanker spill would be limited to some portion of the material on board due to the fact that the vessel is compartmentalized to better contain and manage the cargo or at worst case the volume of material on board the vessel. In addition, a release from a tanker would require a breach of the double hull and would not be under pressure. As such, the spill response actions associated with the BP spill are the only aspects appropriate for comparison and education relating to the release from a tanker."

16. Storm Drains (Page 4.1-39, Line 28 and other locations)

There are no storm drains at the Chevron on-shore Marine Terminal and modifications regarding storm drains need to be made in several locations in the EIR. On Page 4.1-39, Line 28 the sentence should read: "A spill at the Marine Terminal onshore areas could flow offsite and impact the beach areas if spill containment systems are breached." ~~or could flow into storm drains that potentially flow to the ocean or wastewater treatment facilities.~~

On page 4.1-39, Line 32, the sentence beginning "However, drains in these..." should read "However, ~~no~~ drains in these..."

On page 4.1-93, Line 22, the sentence should be revised as follows: "A spill at the onshore area of the Marine Terminal could flow offsite and impact the beach areas if spill containment systems are breached." ~~drain to the ocean through existing area drains or directly over the ground surface to the beach area.~~

Chev-44

Since there are no drains at the Marine Terminal, no material is sent to the Refinery wastewater treatment system. On page 4.2-63, Lines 8 through 11, the sentence starting with "Also, after implementation of MMSSR-2j," should be deleted.

17. Page 4.1-44, Lines 11

The sentence beginning "Such responses..." should be replaced with "As required by regulations, spill response efforts must occur within the first hour of a spill. As such, spill impacts would be reduced from those presented in this analysis."

Chev-45

18. Page 4.1-77, Line 1

The line should read as follows:

"The SPCC in these regulatory programs apply to oil storage and ~~non-~~transportation facilities..."

Chev-46

19. Page 4.1-85, Line 9

The statement "This could potentially result in spill scenarios that exceed the capabilities of the current response organizations in the area" is untrue. The proposed project does not change the configuration of the berths. Additional vessel calls does not increase the number of vessels berthing at the Marine Terminal at any given time. Therefore, existing spill response capabilities are adequate to handle existing as well as future spill response requirements.

Chev-47

20. Page 4.1-87, Line 10

The statement is outdated and should be revised as follows: ~~Only an estimated 50 percent of~~ All tankers, as required under 46 CFR 32.53, utilize gas blanketing systems, which substantially reduces the risk of fire and explosions by eliminating the availability of flammable vapors within the concentrations that could allow ignition. Further, the EIR should indicate that the potential radiant heat footprint associated with a fire or explosion would not change due to the proposed project, since the proposed project will not bring in larger vessels, i.e., there is no change from baseline conditions.

Chev-48

21. Page 4.1-89, Lines 1-3

The proposed project would not result in a change in the potential impacts associated with an oil spill as the proposed project will not bring in larger vessels. Assuming an increase in vessels at the Marine Terminal, there would be an increase in the probability of a spill but no increase in the magnitude of a spill and this should be clarified throughout the EIR.

Chev-49

22. Page 4.2-58, Lines 30 and 31

The sentence should be revised to read as follows: The LARWQCB issued an ~~industrial waste~~ NPDES discharge permit (NO. CA0000337, CI-1603) to the Refinery on ~~January 13, 2007~~ December 21, 2006 (LARWQDB 2006).

Chev-50

23. Page 4.2-58, Line 34

The phrase should be revised to read as follows: "... , with peak flows up to 8.8 MGD during dry weather and up to 27 MGD during wet weather."

Chev-51

24. Page 4.2-59, Line 1

The sentence should be revised to read as follows: "Wastewater consists of 6.45 MGD of Refinery process water, up to 2.34 MGD ..."

Chev-52

25. Page 4.2-59 line 35

Replace 15 ppm with 24 ppm.	Chev-53
<p>26. Page 4-2-60, Lines 17 through 24</p> <p>As discussed in other sections, the Refinery throughput is limited by various environmental permits and, as such, could not increase crude throughput without significant modifications. The same comment also appears on page 4.2-90, lines 8-12.</p>	Chev-54
<p>27. Page 4.2-66, Impact WSQ-1 and throughout Water Quality Impact Discussion</p> <p>The proposed project would not result in a change in the potential water quality impacts associated with an oil spill as the proposed project will not bring in larger vessels. The potential water quality impacts were not compared to the baseline conditions. For example, the potential impacts of PAH dissolution in the water column (see page 4.7-75, lines 16-27) were not compared to baseline conditions.</p>	Chev-55
<p>28. Page 4.2-76, Line 14</p> <p>Delete the word "more" in this sentence. The leak detection system is currently reliable and will continue to be reliable.</p>	Chev-56
<p>29. Page 4.2-76, Line 21</p> <p>The word "allusion" should be allision. This misspelling occurs elsewhere in the document.</p>	Chev-57
<p>30. Page 4.2-79, Line 15</p> <p>The sentence beginning "However, no feasible mitigation..." should be deleted. This sentence does not account for the fact that although the probability of a spill increases, there is no change in the severity of a potential spill over the baseline conditions. There is no change in vessel size as part of the proposed project.</p>	Chev-58
<p>31. Page 4.2-90, Lines 8 through 12</p> <p>The sentence beginning "First, the projected incremental increase ..." should be deleted. There is no proposed increase in Refinery throughput associated with the proposed Project. Further, no wastewater routinely is transferred from the Marine Terminal back to the refinery wastewater treatment system so the proposed project will have no impact on the Refinery's wastewater treatment system.</p>	Chev-59
<p>32. Page 4.3-101, Lines 11 through 16</p> <p>The last two sentences of the paragraph do not provide any relevant information towards the biological impacts of oil spills from the Marine Terminal and should be</p>	Chev-60

deleted. The operation and oil spills from off-shore exploration are not applicable to Marine Terminal operations.

33. Page 4.3-121, Line 7

The line should read as follows:

...occur 60 days prior to the start of any **planned major** construction and be ongoing during construction...

Chev-61

34. Page 4.3-132, Line 32

The line should read as follows to be accurate and consistent with the data reported elsewhere in the document:

..."spill of more than ~~27,000~~ **9,240** gallons of oil to the marine environment."

Chev-62

35. Pages 4.3-101 through 130, Biological Impacts

Throughout this section, biological impacts (e.g., impacts to fish species, marine birds, marine mammals, areas of special biological significance, recreational fishing, and entanglement) of the continued operation of the Marine Terminal have been made without comparing the potential impacts to the existing baseline conditions. For example, the proposed project will not result in an increase in pipelines in the lease area so no increase in the risk of marine mammal entanglement in submarine cables is expected.

Chev-63

36. Page 4.4-16 and 4.4-17, Toxic Emissions

The health risk discussion of existing conditions presented on page 4.4-17 does not account for the voluntary early implementation of low sulfur fuel in auxiliary engines of Chevron-owned vessels implemented by Chevron in 2006. The health risk calculations in the Draft EIR assume the use of 2.7% sulfur in marine fuels. However, in 2006, about 45 percent of the vessel calls at the Marine Terminal used lower sulfur fuels. Therefore, the baseline health risk is overstated. In addition, the future health risk value presented on page 4.4-42 also overstates the impact of the project in that no reduction due to the mandatory reduction of sulfur content in auxiliary engines was included. The Port of Los Angeles 2008 Emission Inventory presents fuel correction factors in Table 3.17, which show the PM emission reductions as a result of lower sulfur content. Converting from residual oil (2.7% sulfur) to marine gas oil (0.1% sulfur) reduces emissions by 83 percent (see Table 1). This emission reduction and subsequent health risk reduction would more than compensate for the worst case vessel trip increase from the proposed project. Emissions from the Marine Terminal are expected to decrease (due to the use of low sulfur diesel), thereby producing a health risk reduction between the baseline and proposed project. Therefore, no increase in health risks would be expected

and no significant health risks would be expected. Therefore, Mitigation Measure AQ-1 is not necessary and should be removed.

The DEIR stated that the emissions and health risk reductions from lower sulfur fuels was not accounted for because, under certain conditions, fees can be paid in lieu of using cleaner fuels. The conditions under which fees can be paid are very restrictive and are only allowed if permission is granted by CARB in advance on a vessel-by-vessel basis. As such, these conditions are not normal operating conditions and most vessels, if not all vessels, will comply with the lower sulfur fuel requirements and the associated emission and health risk reductions should be properly included.

Chev-64

Table 1

Auxiliary Engine Emissions by Fuel Type

Ship Engine	Fuel Type	S content %	Emission Factor g/kw-h	Emissions kg/hr	Emissions Reduction
Aux	Residual Oil	2.7	1.5	26.8	NA
	MGO	0.1	0.3	4.6	83%

Note: Based on 24 hours of hoteling from a 1 million bbl vessel.

The impact discussion regarding toxic emissions on pages 4.4-41 through 4.4-43 should reflect the fact that low sulfur fuels will be used in auxiliary boilers as required by CARB regulations.

37. Page 4.4-20, Lines 24 through 27

The project (the continued operation of the Marine Terminal) includes no new equipment that would require the use of electricity. Therefore, the project will not result in an increase in GHG emission associated with an increase in electricity use.

Chev-65

38. Pages 4.4-44, Table 4.4-11, Greenhouse Gas Emissions Summary

Per the requirements of the CEQA statutes, the analysis of project impacts and related mitigation measures should be limited to the California boundaries. Therefore, GHG emissions associated with the proposed project would be limited to GHG emissions within California and the EIR should be revised to reflect this information. Also, note that the California Air Resources Board regulates the California border from 24 nautical miles (not 20). Further, the calculation of the worldwide GHG emissions would need to be changed to accurately reflect vessel origination information and transport. As noted above, the GHG impacts are associated with the estimated increase in marine vessels. Although the EIR assumes a one percent per year increase in crude through the Marine Terminal, Chevron refinery has no plans to make any additional modifications during the

Chev-66

proposed lease cycle that would substantially increase the facility's current capacity for the foreseeable future. Therefore, GHG impacts would not occur unless there was an increase in marine vessels visiting the terminal.

39. Page 4.6-27 through 31, Geological Impacts

Throughout this section, impacts on geological resources of the continued operation of the Marine Terminal have been made without comparing the potential impacts to the existing baseline conditions. For example, Page 4.6-27, Lines 8-10, indicates that "An earthquake of this magnitude on one of the known faults previously discussed may cause extensive damage to the Marine Terminal." The EIR should recognize that this risk exists today and is part of the baseline. The proposed project will not result in an increase in hazards associated with a seismic event. The project will not result in an increase in material stored, or result in new pipelines so the potential impacts of a seismic event would be the same as currently exists. The same is true for impacts associated with tsunami wave damage and liquefaction.

Chev-67

40. Page 4.7-1, Lines 14 through 19

This paragraph should be clarified to indicate that portions of the Marine Terminal that are within the jurisdiction of the CSLC. The onshore facilities on a 9-acres strip of land below the Chevron Refinery are not part of the Marine Terminal lease.

Chev-68

MINOR EDITORIAL COMMENTS

1. The EIR should be reviewed to make sure that distances in feet have been converted to meters correctly. In several places of the EIR, incorrect conversions have been made. For example, Page 2-24, Line 3, the correct conversion of 200 feet is 61 meters (not 70.0), and Page 2-28, Line 10, the correct conversion for 43-inches is 109.2 cm.

5. Page 2-16, Line 15

"Comparison gauges should be "gauge comparisons".

7. Page 2-20, Line 14

Revise as follows: "from 2004 through 2008 ~~2006~~".

17. Page 3-10, Lines 1-3

The first two sentences on this page should be deleted as they are repetitive of the last 2 sentences on page 3-9.

Chev-69

45. Page 4.9-4, Line 14 and Page 4.9-5 Line 1

The table is misnumbered. It should be 4.9-3 and its reference on Page 4.9-4 corrected as well. All subsequent tables and references should be adjusted accordingly.

Please note that our comments provide clarification, accuracy, and point out certain redundant requirements. A lead agency is not required to recirculate an EIR unless: (1) a new significant environmental impact would result from the project or from a new mitigation measure; (2) there is a substantial increase in the severity of an environmental impact; (3) a feasible alternative or mitigation measure considerably different from others previously analyzed would reduce the significant impact of the project; or (4) the draft EIR is fundamentally and basically inadequate (CEQA Guidelines §15088.5(a)). Recirculation is not required where new information is added to the EIR to clarify, amplify, or make insignificant modifications to the draft EIR (CEQA Guidelines §15088.5(b)). The comments provided by Chevron do not trigger any of the conditions identified in CEQA Guidelines §15088.5(a) and therefore, recirculation of the draft EIR is not required.

M:dbs:2665 Chevron:DEIR Comments